

B' Claim 11. (Original) The method of Claim 1 further comprising subsequently purifying the secondary aminoisobutylalkoxysilane.

Claim 12. (Original) The method of Claim 1 wherein said hydrosilating step is conducted at a elevated temperature.

REMARKS

Upon careful and complete consideration of the Office Action dated December 18, 2002, applicants have amended the claims which, when considered in conjunction with the comments herein below, are deemed to place the present application into condition for allowance. Favorable reconsideration of this application, as amended, is respectfully solicited.

The Office Action initially objected to claim 3 as amended with applicant's last response as a part of said amended claim inadvertently repeated itself. Applicants have accordingly amended claim 3 to delete the repetitive language. Consequently, it is respectfully requested that the objection to claim 3 be withdrawn

Claims 5-8 were also rejected for allegedly being of improper dependent form for failing to further limit the subject matter of a previous claim. As was correctly pointed out by the Examiner, applicants amended claim 1 in the last filed response by limiting the hydrosilation catalyst to platinum catalysts, while claim 5 includes other metal catalysts such as rhodium, iridium, ruthenium and osmium. Claim 5 has therefore been amended to conform it to previously amended claim 1. That is, claim 5 has been limited in that platinum catalysts

are the only catalyst mentioned. Based on this amendment, the objection to claims 5-8 is also respectfully requested to be withdrawn.

The Office Action then went on to reject claims 1-10 and 12 under 35 U.S.C. §102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as allegedly being obvious over U.S. Patent No. 4,888,436 to Shiozawa et al. (hereinafter referred to as "Shiozawa et al.").

In rejecting the main claim of the present application, the Office Action relied on Shiozawa et al. for teaching "the reaction of a secondary methallylamine with a hydridoalkoxysiloxane, when in the amine formula, R^4 equals methyl, and where one of R^2 and R^3 equals alkyl. In column 4, lines 17-26, and columns 6-7, Comparative Example 1, Shiozawa teaches the hydrosilation procedure using a platinum catalyst."

As applicants respectfully disagree with the above-noted interpretation of Shiozawa et al., a review of this interpretation is required. More specifically, the first part of the above quoted conclusions comes from column 3, lines 9-65 of Shiozawa et al. It is stressed that this section of Shiozawa et al. deals only with hydrosilation using a rhodium catalyst. This in fact, relates to the claimed invention of Shiozawa et al., i.e. said claimed invention being limited only to a rhodium catalyst. The second part of the conclusion drawn by the Office Action, and the part which is critical to the rejection of the claims of the present invention, implies that Shiozawa et al. also teaches the use of a platinum catalyst. Column 4, lines 17-26, and columns 6-7, Comparative Example 1, of Shiozawa, referred to by the Office Action, do show a hydrosilation procedure using a platinum catalyst. However, it is respectfully submitted that in both instances, Shiozawa is actually showing that results with the platinum catalyst are inferior to the results when a rhodium catalyst are employed. The disclosure is teaching the skilled artisan NOT to use a platinum catalyst.

After describing the results using a rhodium catalyst (see column 4, lines 8-16, Shiozawa et al. note at column 4, lines 17-26, that "[i]n contrast, if an allylamine is reacted with a hydroalkoxy silane, using a chloroplatinic acid catalyst, the yield of the gamma-isomer is on the order of 40-50%, with a gamma/beta ratio of about 4." With use of the rhodium catalyst, Shiozawa et al. teach results of yields of the gamma-isomer on the order of 50-70%, with a gamma/beta ratio as high as 15 to 16. Clearly, Shiozawa et al. is attempting to show the superiority of the rhodium catalyst over the platinum catalyst. In the same vain, Shiozawa et al. continues in the same paragraph of discussing the platinum catalyst results, with a discussion of results using a rhodium hydride carbonyl tris(triphenylphosphine) complex as a catalyst and again teaches unsatisfactory results. Thus the use of the words at the beginning of the paragraph "In contrast..."

The Office Action further pointed to Comparative Example 1 of Shiozawa et al. as teaching the use of a platinum catalyst. Applicants respectfully point out that this is a "comparative example". That is, Shiozawa et al. is actually showing that when a platinum catalyst is used, the results are not comparable to the claimed invention, i.e. the use of rhodium catalysts. Both sections of Shiozawa et al. relied on by the Office Action to teach the use of a platinum catalyst, actually teach poor performance of the platinum catalyst, i.e. low yield, high beta-isomer content are indicated in both instances. Accordingly, the skilled artisan reading Shiozawa et al. would, based on the Shiozawa et al. disclosure, be precluded from using platinum as a catalyst with secondary methallylamines. Said in another way, Shiozawa et al. teaches away from the use of platinum as a catalyst.

Based on the above reasons alone, the rejection of the claims based on Shiozawa et al. should be withdrawn. The Examiner stated in the Office Action in defending his conclusion that Shiozawa et al. teach the use of a platinum catalyst that "[e]ven though this teaching is in

the form of a comparative examples, the method as claimed is disclosed." As was held in In re Carroll, 601 F.2d 1184, 1186, 202 U.S.P.Q. 571, 572 (CCPA, 1979) (quoting Graham v. John Deere Co., 383 U.S. 1, 36 (1965)), "[o]ne of the more difficult aspects of resolving questions of non-obviousness is the necessity 'to guard against slipping into use of hindsight.'" It is respectfully submitted that hindsight has been used in the present case in applying the teaching of Shiozawa et al. against the present invention. In order to support a finding of obviousness, the Patent Office has the burden of showing that the prior art would have taught or suggested the claimed invention to one of ordinary skill in the pertinent art (see In re Clinton, 527 F.2d 1226, 1228, 188 U.S.P.Q. 365, 367 (CCPA 1976)), and that one of ordinary skill in the art would reasonably expect that the method suggested by the references would be successful. "Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure." (see In re Dow Chem., Co., 837 F.2d 469, 473, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988). Thus, it is incumbent upon the Office Action to show that the prior art would have suggested to one of ordinary skill in the art that a platinum catalyst could be successfully used in the hydrosilation process comparative to its use of the rhodium catalyst. This the Office Action has not done. Simply restated, Shiozawa et al. does not teach success with the use of a platinum catalyst.

It is respectfully submitted that one skilled in the art at the time of the present invention was made who is only presented with Shiozawa et al. would not even attempt the process of Shiozawa et al employing a platinum catalyst as Shiozawa et al. clearly teaches that to do so would result in low yield, high beta-isomer content in the product.

Apart from the above argument, there are facts disclosed in the instant application that the Examiner should consider in equal light to the teachings of Shiozawa et al. For example, contrary to the teachings of Shiozawa et al. (and of also cited U.S. Patent No. 4,481,364, at

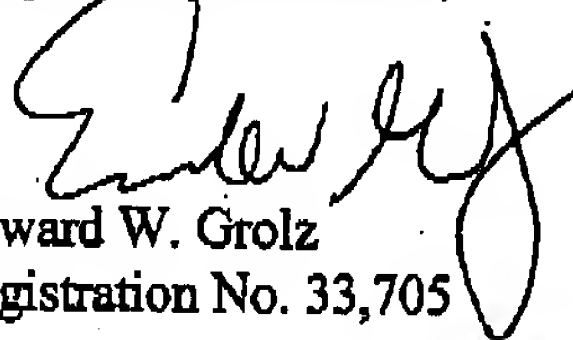
column 3, line 64 and claim 9, largely copied by Shiozawa et al.), comparative example 1 of the present application (see top of page 13 of the subject specification) clearly shows that methallylamine and trimethoxysilane do not react under conditions where reactions of secondary methallylamines of the present invention are essentially complete. Faced with this experiment, the ordinary skilled artisan could make, therefore, no conclusion about the reactivity of secondary methallylamines in view of the essential lack of reactivity of methallylamine itself. Since neither Shiozawa et al. nor any other researcher had actually run hydrosilations of methallylamine, and were all unaware of its poor reactivity, it was still unknown at the time of the present application and surprising to the applicants that secondary methallylamines showed high hydrosilation reactivity.

The combination of Shiozawa et al.'s negative teaching relative to a platinum catalyst, and the utter lack of reactivity of methallylamine in Comparative Example 1 of the present specification, makes it very surprising that secondary methallylamines would react cleanly, particularly in view of Shiozawa et al.'s Comparative Example 1, where allylamine does not.

In a simple summary of the above, it is respectfully submitted that Shiozawa et al. do not teach or suggest a platinum-catalyzed process for making secondary aminoisobutylalkoxysilanes. Based on the above arguments, the rejection of claim 1 (and dependent claims 2-10 and 12) is respectfully requested to be withdrawn. It is further submitted that all the claims in the application contain patentable subject matter and a Notice

of Allowance is respectfully solicited.

Respectfully submitted,



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